

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-38 (Cancelled)

39. (currently amended) Apparatus for removing broken-out pieces, from a sheet of material which contains blanks and which rests on a female die in such a way that a broken-out portion extends over an opening in a breaking-out surface and is urged away through the opening under the pressure of at least one breaking-out tool, wherein associated with the breaking-out tool is a support means which is movable in a direction of movement of the breaking-out tool and which is rigidly connected in positively locking relationship to the breaking-out surface or female die in an edge region of the opening and which projects into the opening with a support surface which can be inclined with respect to a connection pairing and which in a rest position engages in substantially parallel relationship under the broken-out piece disposed in the sheet of material and which is adapted to be variable in its position upon the movement of the broken-out piece by the breaking-out tool ~~and in particular is adapted to be transferred into an angle of inclination relative to the sheet of material in the downward movement of the broken-out piece,~~ wherein the connection pairing for the support means comprises at least one undercut receiving groove on the one hand and a portion which can be fitted thereinto and which extends in the breaking-out direction (x) on the other hand, characterized in that a plurality of cross-sections of the

receiving groove and a portion forming a first coupling rib or bar are of a dovetail-shaped configuration, wherein the support means appears in longitudinal section as an angle portion with at least one coupling rib which is formed out of one of a plurality of limbs for a receiving groove of the female die formed in a limb for a second coupling rib of the female die on the one hand and with a flexible limb forming the support surface on the other hand and wherein the breaking-out tool and the support means are arranged such that the broken-out piece is inclined relative to the sheet of material in the downward movement of the breaking-out tool.

40. (previously presented) Apparatus for removing broken-out pieces, in particular waste portions (12), from a sheet of material (10) which contains blanks or the like flat portions and which rests on a female die (14, 14_a) or the like breaking-out surface in such a way that the broken-out portion extends over an opening (16, 16_a) in the breaking-out surface and is urged away through the opening under the pressure of at least one breaking-out tool (40, 41), wherein associated with the breaking-out tool is a support means (20_a, 62) which is movable in the direction of movement of the breaking-out tool and which is rigidly connected in positively locking relationship to the breaking-out surface or female die in the edge region of the opening and which projects into the opening with a support or contact surface (24, 25, 34) which can be inclined with respect to said connection pairing and which in the rest position engages in substantially parallel relationship under the waste portion or broken-out piece disposed in the sheet of material and which is adapted to be variable in its position upon the movement of the waste portion by the breaking-out tool and in

particular is adapted to be transferred into an angle of inclination relative to the sheet of material in the downward movement of the waste portion, wherein the connection pairing is adapted to be brought together in the breaking-out direction (x), characterized in that the connection pairing comprises at least one receiving groove (28_a, 28_b) in the female die (14) at the edge of the opening (16) thereof on the one hand and a portion (80, 92, 97), which can be fitted thereinto, of a vertical limb (22) of the support tool (20_e, 20_f, 21) on the other hand, or that the connection pairing comprises a plug-in profile portion (65) of the female die and an associated hollow profile portion (63) which is formed by a limb of an angle portion as a shaped support portion (62) whose other limb is a support lip (64), wherein the shape of the hollow profile portion corresponds to that of a cylindrical cup.

41. (previously presented) Apparatus as set forth in claim 40, characterized in that formed on the vertical limb (22) is at least one pin-like plug-in element (80, 92) which extends or extend at a spacing (y) relative to the vertical limb and which is respectively adapted to be inserted into an opening (84, 94) provided in the female die (14) at a spacing (y) relative to the receiving groove (28_a) and is removable in the breaking-out direction (x).

42. (previously presented) Apparatus as set forth in claim 41, characterized in that the plug-in element (80, 92) and the opening (84) are of rectangular cross-section and/or that the plug-in element (80) projects from a transverse web portion (82) at a spacing (y) relative to the rear surface of the vertical limb (22).

43. (previously presented) Apparatus as set forth in claim 41, characterized in that the plug-in element (80, 92) projects up from a transverse web portion (82) at a spacing (y) relative to the flank surface of the vertical limb (22).

44. (previously presented) Apparatus as set forth in claim 40, characterized in that the flank surfaces (88) of the vertical groove (28_a, 28_b) are stepped and the vertical limb (22) is supported in the rear region (90) of the vertical groove, which rear region is of narrower cross-section.

45. (previously presented) Apparatus as set forth in claim 40, characterized in that the vertical limb (97) is fitted with a plug-in slot (98) on to a limb (100) of an angle bracket (102), which extends in the vertical groove (28_b), while the other limb (101) of the angle bracket is connected to the female die (14).

46. (previously presented) Apparatus as set forth in claim 40, characterized in that shaped support portions (62) which are arranged in the opening (16_a) at the edge thereof and which are fitted on to plug-in profile members (65) are disposed in mutually opposite relationship, the support portions (62) being provided with radial support lips (64) of elastic material which are directed towards each other.

47. (previously presented) Apparatus as set forth in claim 39, characterized in that the flexible limb forming the support surface has an edge opening which is delimited on both

sides by cantilever portions, and at least one inner opening at a spacing in relation to the edge opening.

48. (previously presented) Apparatus as set forth in claim 39, characterized in that arranged downstream, in the breaking-out direction (x), of the limb (24) forming the support surface (25) is at least one catch finger (38), in particular a pair of catch fingers.

49. (previously presented) Apparatus as set forth in claim 39, characterized in that the limb (24) forming the support surface (25) is flanked by side portions which are formed on the other limb (22) and form the catch fingers (38).

50. (previously presented) Apparatus as set forth in claim 48, characterized in that the catch finger (38) is enlarged in longitudinal section from its free end (36) towards the limb (22) formed thereon.

51. (previously presented) Apparatus as set forth in claim 39, characterized in that the support tool (20_a) has a partial frame which is substantially U-shaped in cross-section and which comprises a back portion including the coupling rib or ribs (27), with two parallel side walls (23), wherein a support plate (46, 46_a) is arranged pivotably about an axis (A) between the side walls.

52. (previously presented) Apparatus as set forth in claim 39, characterized in that said at least one breaking-out tool extends between a plurality of surfaces of the support

means, said plurality of surfaces being movable in the breaking-out direction (x).

53. (previously presented) Apparatus as set forth in claim 39, characterized in that the portion including the support surface is provided at a free edge with at least one edge opening, wherein said at least one edge opening is disposed in opposite relationship to a free end of the breaking-out tool.

54. (previously presented) Apparatus as set forth in claim 39, characterized in that disposed opposite the support surface as a breaking-out tool is a pressure pin with a rounded free end which is in the form of a rough surface.

55. (currently amended) Apparatus as set forth in claim 39, characterized in that associated with the support surface as a breaking-out tool is a fork member with one or more finger-like fork prongs ~~of preferably flat cross section, wherein preferably a free end of a pressure pin is in the form of a rough surface.~~

56. (previously presented) Apparatus as set forth in claim 55, characterized in that the free end of the fork prongs is formed by a part-circular curve (43_a in Figures 18, 23) formed therein or a tip (Figures 30, 31) formed out thereon.

57. (previously presented) Apparatus as set forth in claim 54, characterized in that the rough surface is formed by a coating (44), in particular a coating with oxides, carbides, corundum or the like.

58. (previously presented) Apparatus as set forth in claim 54, characterized in that the coating (44) is applied by means of thermal spraying.

59. (previously presented) Apparatus as set forth in claim 54, characterized in that the rough surface is formed by a coating of plastic material or rubber.

60. (previously presented) Apparatus as set forth in claim 54, characterized in that the rough surface is formed by irregularities provided in the surface of the pressure pin (40) or the fork prongs (42, 42_a, 42_b), wherein the surface of the pressure pin or the fork prongs (42) is roughened mechanically, chemically or electrically.

61. (previously presented) Apparatus as set forth in claim 55, characterized in that an axial height (h) of the rough surface corresponds at most to a diameter (d) of the pressure pin or a width of the fork prong.

Claim 62. (cancelled)

63. (previously presented) Apparatus as set forth in claim 55, characterized in that the fork member projects from a plate-shaped male die, wherein the portion of the fork member, which is connected to the male die, has clamping noses.

64. (previously presented) Apparatus as set forth in claim 39, characterized by a clip-like tool (68 through 74) which is fixed to the opening (16, 16_a) and which respectively includes a frame portion (76) from which resilient support tongues (34_b)

project inwardly or on which at least one inwardly disposed support plate (46_b) is arranged movably about a pivot axis (A).

65. (previously presented) Apparatus as set forth in claim 64, characterized by a frame portion (76) which is at least partially curved in plan view or by a substantially rectangular frame portion (76).

66. (new) Apparatus as set forth in claim 39, wherein said one or more finger-like fork prongs comprise a flat cross-section.